

WHAT IS CLAIMED IS:

1. Air-conditioning system for rooms comprising a cooling module (2) associated to a heating system (8), a plurality of fan-convectors (F1, ..., Fn) acting as both heating and cooling terminals, a single hydraulic circuit (5, 7) leading a fluid to said plurality of fan-convectors (F1, ..., Fn), said cooling module (2) being equipped with a first inlet tube (B) and a first outlet tube (A), said heating system (8) being equipped with a second inlet tube (D) and a second outlet tube (F), said single hydraulic circuit (5, 7) comprising an intake tube (5) and a return tube (7), said air-conditioning system further comprising a storage reservoir (4) and a circulation pump (P1), said storage reservoir (4) being connected on one hand to said return tube (7) of said single hydraulic circuit (5, 7) and on the other to said circulation pump (P1), said circulation pump (P1) being connected to said first inlet pipe (B), wherein said cooling module (2) comprises a three-way switching valve (V1) whose central outlet is connected to said intake tube (5) of said single hydraulic circuit (5, 7), an inlet is connected to said second outlet tube (F) of said heating system (8), and an inlet is connected to said first outlet tube (A) of said cool-

ing module (2), said return tube (7) of said hydraulic circuit (5, 7) being connected to said second inlet tube (D) and to said first inlet tube (B), so that said three-way switching valve (V1) connects  
5 said plurality of fan-convectors (F1, ..., Fn) both during cooling and during heating operating mode.

2. Air-conditioning system for rooms according to claim 1, wherein it further comprises a control unit (3) controlling said three-way switching valve  
10 (V1), said cooling module (2) and said fan-convectors (F1, ..., Fn).

3. Air-conditioning system for rooms according to claim 1, wherein said cooling module (2) comprises a compressor (10), a capacitor (11), a lamination  
15 element (12) and an evaporator (13), each of said components being connected to the other by means of connection tubes (E).

4. Air-conditioning system for rooms according to claim 3, wherein said control unit (3) controls  
20 the working of said compressor (10), of said plurality of fan-convectors (F1, ..., Fn), of said three-way switching valve (V1), of said circulation pump (P1) and of said heating system (8).

5. Air-conditioning system for rooms according  
25 to claim 1, wherein said heating system (8) is an in-

dependent boiler or a centralized installation or a district heating system.